

Work Order ID 81126 - 1

March-08-12 8:55:05 AM

\*81126\*

Page 1

Item ID: D3560-044

Accept

\*N9000040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Arm Weldment

Start Date: 08/03/2012 Start Qty: 6.00 2

\*6\*

Cust Item ID:

Required Date: 22/03/2012 Req'd Qty: 6.00 2

\*6\*

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/03/09 Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr

Revision Nbr

D3560

Rev D

100

0.00

\*100\*

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut blanks 15.500" long

on 12/04/01

6 0

110

0.00

\*110\*

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

1- Mill as per Folio FA696 Rev: AA & Dwg D3560 Rev: D  
2-C'sink 0.196" hole on manual mill as per dwg D3560  
3-Deburr per dwg D3560

B.A 12/04/08

6 0

12-4-10

120

0.00

\*120\*

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

B.A 12/04/08

6 0



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries





**Work Order ID 81126**

March-08-12 8:55:05 AM

**\*81126\***

Page 2

Item ID: D3560-044

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Arm Weldment

Start Date: 08/03/2012 Start Qty: 6.00

**\*6\***

Cust Item ID:

Required Date: 22/03/2012 Req'd Qty: 6.00

**\*6\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

QC8- Inspect parts - second check

0.00

**\*130\***

QC

Memo

0.00

Quality Control

140

Large Fab

0.00

**\*140\***

Large Fab

Memo

0.00

Large Fab

1-Weld assembly as per dwg D3560  
STEP:  
1- clean material (buff bracket and bottom of arm with blue pad )  
2- set up bracket and arm on jig  
3- preheat bracket and arm with torch  
4- clean before welding with brush  
5- set up machine to 135 amps  
6- weld across bottom and top ends  
7- reheat with torch ( 65 deg C )  
8- on one side weld from bottom to top half way  
9- same for other side (half way)  
10- from half way point weld the rest of the first side (ease off pedal near end)  
11- same for remaining side (ease off pedal near end)

*Alum. Rod # 120169*

*2* *0* *PL*  
*12-04-12*



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Work Order ID 81126

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**\*81126\***

Page 3

Item ID: D3560-044

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Arm Weldment

Start Date: 08/03/2012 Start Qty: 6.00

**\*6\***

Cust Item ID:

Required Date: 22/03/2012 Req'd Qty: 6.00

**\*6\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC5- Inspect part completeness to step on W/O	0.00							
<b>*150*</b>									
QC	Memo	0.00							
Quality Control									
160	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
<b>*160*</b>									
QC	Memo	0.00							
Quality Control									
170	Chemical Conversion Coat per QSI005 4.1	0.00							
<b>*170*</b>									
HandFinish	Memo	0.00							
Hand Finishing									

Ac  
12.04.16





March-08-12 8:55:05 AM

Page 4

**Accept**

\*N900040100\*

Setup Start \*NS1\*

Stop \*NS2\*

**Item Name:** Arm Weldment

**Start Date:** 08/03/2012      **Start Qty:** 6.00

\*6\*

**Cust Item ID:**

**Required Date:** 22/03/2012      **Req'd Qty:** 6.00

\*6\*

**Customer:**

**Reference:**

Approvals: \_\_\_\_\_ Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

180 QC3- Inspect Part Finish

0.00

**\*180\***

QC

## Memo

0.00

## Quality Control

190

0.00

\*190\*

## Small Fab

### Small Fab

## Memo

0.00

## Small Fab

1-Press bushing in D3560 arm per dwg D3562

200

QC5- Inspect part completeness to step on W/O

0.00

\*200\*

QC

## Memo

0.00

## Quality Control



# Work Order ID 81126

March-08-12 8:55:05 AM

**\*81126\***

Page 5

Item ID: D3560-044

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Arm Weldment

Start Date: 08/03/2012 Start Qty: 6.00

**\*6\***

Cust Item ID:

Required Date: 22/03/2012 Req'd Qty: 6.00

**\*6\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

210

Identify as per dwg & Stock Location: *UNA*

0.00

**\*210\***

Packaging

Memo

0.00

Packaging

\*\*\* STOCK IN STEP CELL\*\*\*

*ll*  
12-04-16

220

QC21- Final Inspection - Work Order Release

0.00

**\*220\***

QC

Memo

0.00

Quality Control

*12/4/17*

*ME*  
12-04-17





# Picklist Print

March-08-12 8:55:08 AM

Page 1

Work Order ID: 81126

\*81126\*

Parent Item: D3560-044

\*D3560-044\*

Parent Item Name: Arm Weldment

Start Date: 08/03/2012

Required Date: 22/03/2012

Start Qty: 6.00

Required Qty: 6.00

## Comments:

IPP Rev:A New Issue 07.05.24 EC  
IPP Rev B ECN 987 07.10.09 EC verified by DD  
IPP Rev:C ECN1048 07-12-18 DD verified by: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2808

Manufactured

No

100

Each

35.0000

1

6

\*D2808\*

\*\*

Bushing

### Location

### Loc Qty

### Loc Code

GA

35

32896

2

79688

33

M6061T6B0.500X05.00  
0

Purchased

No

140

f

75.2274

1.295

8.178947

\*M6061T6B0 500X05 000\*

\*\*

6061-T6 Bar .500 x 5.00

### Location

### Loc Qty

### Loc Code

MAT001

21.834

112154

6.935

117933

2.123

119346

12.776

MAT004

53.3934

120243

24

120421

5.3934

120866

24

M121040 X 8.18

ML 12/04/01



# Picklist Print

March-08-12 8:55:08 AM

Work Order ID: 81126

\*81126\*

Parent Item: D3560-044

\*D3560-044\*

Parent Item Name: Arm Weldment

Start Date: 08/03/2012

Required Date: 22/03/2012

Start Qty: 6.00

Required Qty: 6.00

D3592-1

Manufactured No

190

Each

17,0000

1

6

\*D3592-1\*

\*\*

Plate

*12.04.12*

Location

Loc Qty

Loc Code

WA

15

79715

15

WA002

2

47015

2

*2*









RELEASED  
07.12.16

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 81126 MCT  
12/03/09

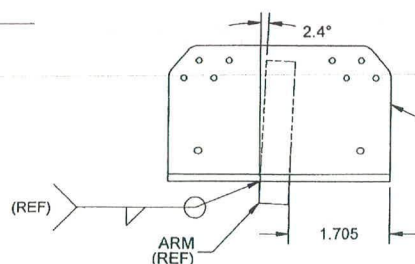
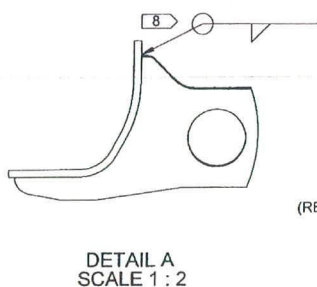
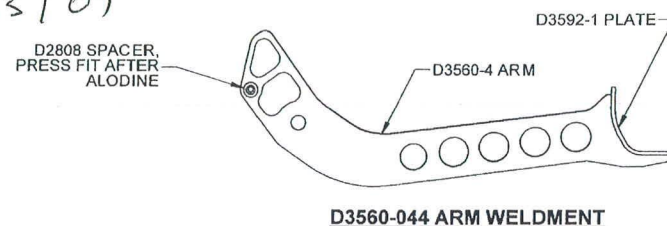
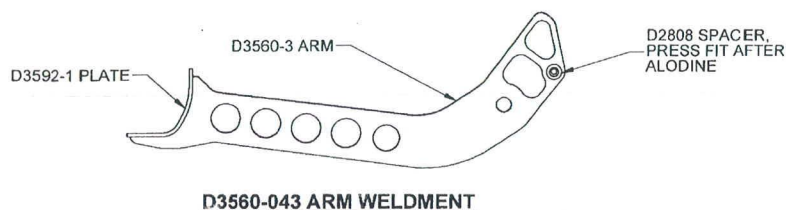
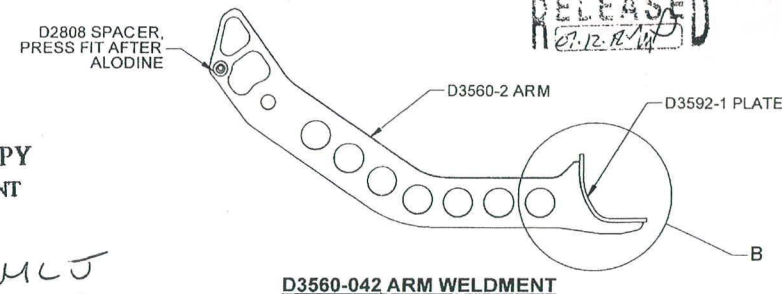
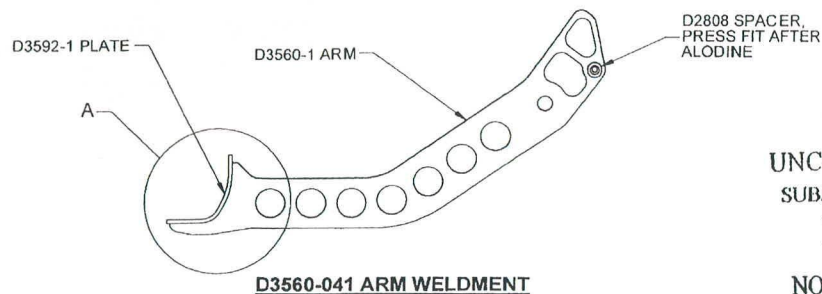
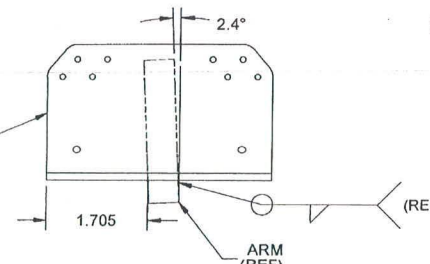
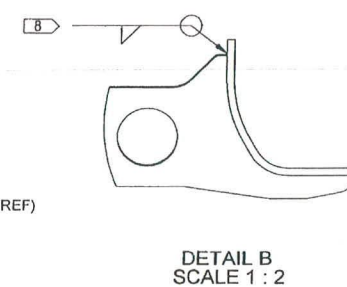


PLATE  
(REF)



ARM  
(REF)



**PARTS LIST**

QTY -041	QTY -042	QTY -043	QTY -044	P/N	DESCRIPTION
X				D3560-041	ARM WELDMENT
	X			D3560-042	ARM WELDMENT
		X		D3560-043	ARM WELDMENT
			X	D3560-044	ARM WELDMENT
1	1	1	1	D2808	SPACER
1				D3560-1	ARM
	1			D3560-2	ARM
		1		D3560-3	ARM
			1	D3560-4	ARM
1	1	1	1	D3592-1	PLATE

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.23 lbs (TYP)
- 8) WELDING: PER DART QSI 004

D	ADD D2808 PRESS FIT NOTE; REDRAWN IN SOLIDWORKS	DC	07.11.16
C	REMOVE POWDER COAT	CP	07.06.19
B	REDESIGN AS WELDMENT, ADD POCKETS	CP	07.01.15
A	NEW ISSUE	CP	06.09.25
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	07.11.16		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO.  
**D3560**

TITLE  
**ARM WELDMENT**

REV. D  
SHEET 1 OF 5  
SCALE  
1:4

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81126

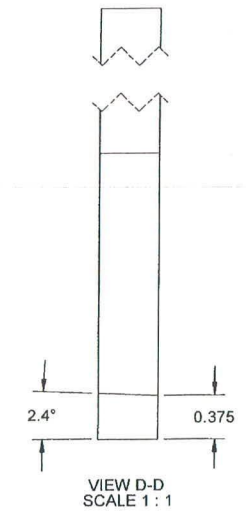
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07.12.18

**D3560-2 ARM**

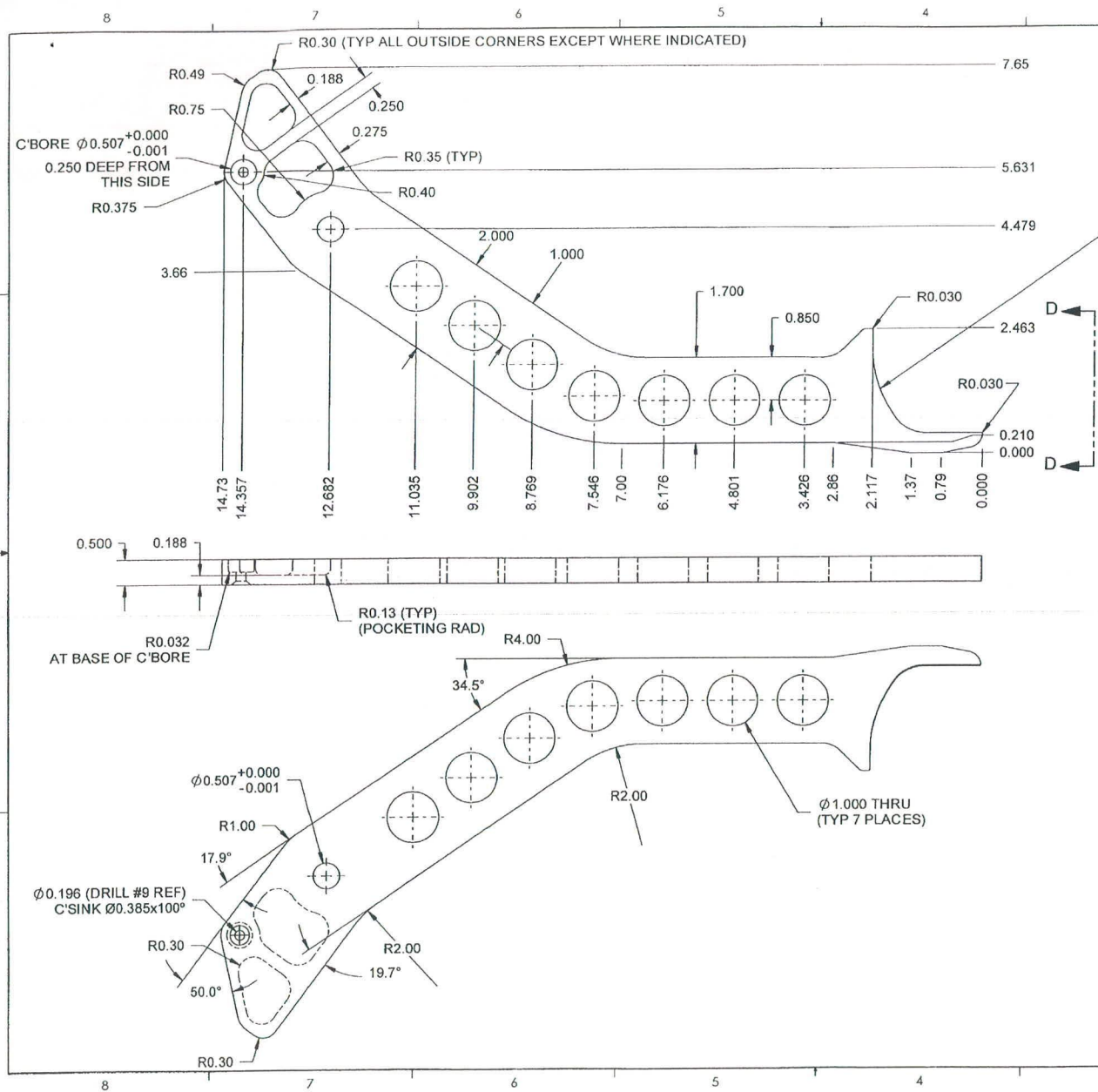
PROFILE TO MATCH  
D3592-1 PLATE,  
MACHINE AT 2.4°,  
SEE VIEW D-D

**NOTES:**

- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR, 0.500 THICK  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
(REF. DART SPEC. M6061T6B0.500)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.05 lbs



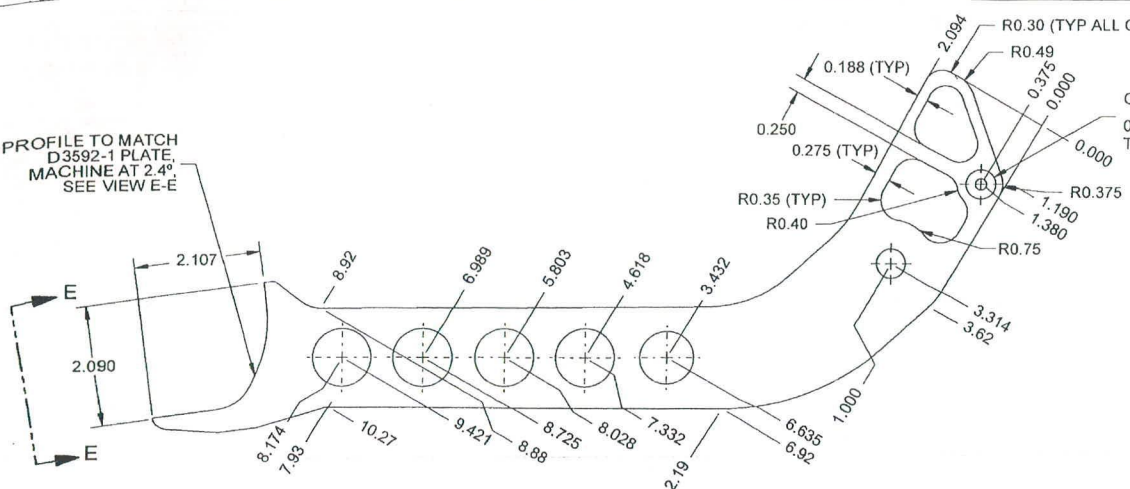
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DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D3560	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		ARM WELDMENT	1:2
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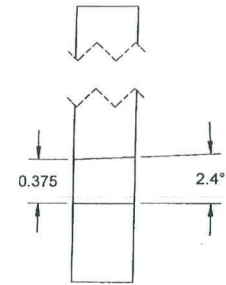
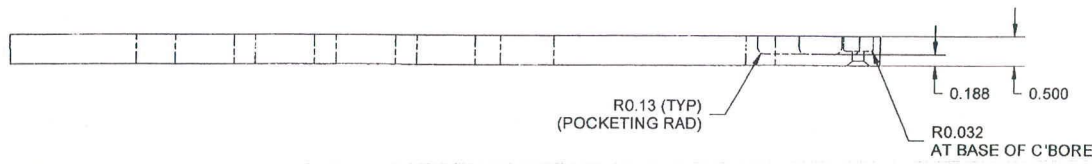
81126

PROFILE TO MATCH  
D3592-1 PLATE,  
MACHINE AT 2.4°  
SEE VIEW E-E

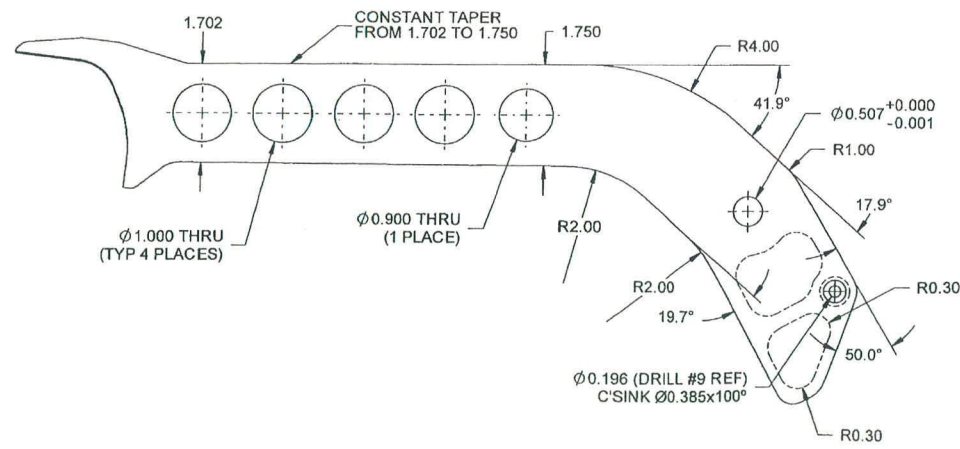


### D3560-3 ARM

- NOTES:
- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR, 0.500 THICK  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
(REF. DART SPEC. M6061T6B0.500)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 1.05 lbs



VIEW E-E  
SCALE 1:1

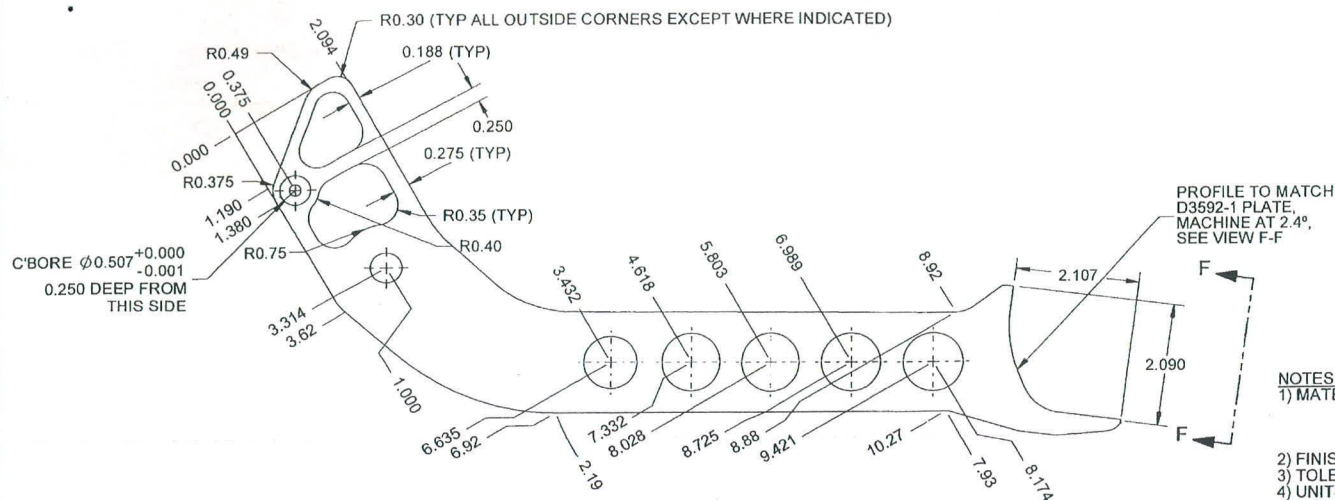


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10-12-14

DESIGN	DP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AC		
CHECKED	AL	DRAWING NO. D3560	REV. D
MFG. APPR.	MD	SHEET 4 OF 5	
APPROVED	MD	TITLE ARM WELDMENT	SCALE 1:2
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DATE	07.11.16		

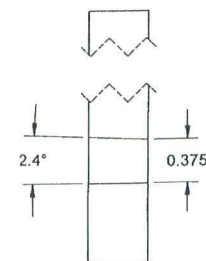
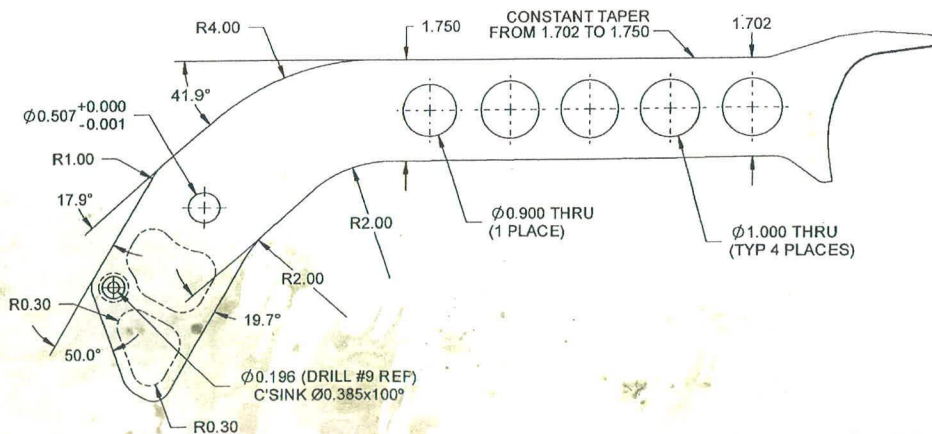
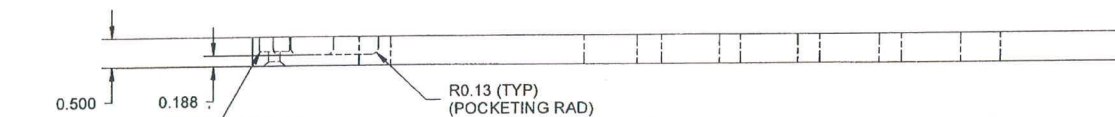








### D3560-4 ARM

- NOTES:
- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR, 0.500 THICK PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR PER AMS-QQ-A-200/8 (OR AMS 4160) (REF. DART SPEC. M6061T6B0.500)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 1.05 lbs



VIEW F-F  
SCALE 1:1

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D3560.	SHEET 5 OF 5
APPROVED		TITLE	SCALE
DE APPR.		ARM WELDMENT	1:2
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81126



